

1991

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The Benefits of Women's Education: Warming Up
A Cold College Climate for Women Undergraduates

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Abstract

The existence of sex discrimination in American college classrooms, and the harmful effects of such discrimination on women students have been well established. The present study sought to determine if exposure to women's education could aid students in overcoming some of these deleterious effects. Twenty-eight female introductory psychology students and eleven women's studies students read various pieces of research and discussed the readings in experimental sessions. The introductory psychology students in the control group were educated about various well documented gender differences, while the introductory psychology and women's studies students in the experimental groups learned about sex discrimination in college classrooms. Subjects completed questionnaires asking about discriminatory behavior in their classes. Results showed that subjects exposed to feminist education had a higher awareness of several types of sex biased behavior in the college setting.

The Benefits of Women's Education: Warming Up
a Cold College Climate for Women Undergraduates

In recent years, numerous researchers in the field of gender inequality have turned their attention to the sex discrimination that can be said to be one of the subtle biases influencing women's experiences in the system of higher education. This new focus is perhaps due to the steadily increasing number of women students enrolling in undergraduate programs across the country. As Hall and Sandler (1982) pointed out, women students do in fact comprise the "new majority" of undergraduates.

The existence of sex discrimination in the college and university setting has been well documented, with the most extensive research of this phenomenon appearing in a paper entitled, "The Classroom Climate: A Chilly One for Women?" written by Roberta Hall and Bernice Sandler (1982) for the Project on the Status and Education of Women of the Association of American Colleges. In writing that paper, Hall and Sandler hoped to educate faculty, students, and administrators about the ways in which men and women students are treated differentially in the educational setting. They identified thirty-four

ways in which sex discrimination is manifested in the university environment and discussed the detrimental effects that this discrimination has on women students. It is the contention of this author that the education that Hall and Sandler hoped to achieve needs to be continued. It is therefore the purpose of this paper to extend the findings of Hall and Sandler's research in the hopes of further educating members of the university community. This paper will also seek to identify what levels of intervention are necessary to lessen or altogether eradicate the negative effects of sex discrimination on women students.

The primary channels where sex discrimination is manifested in the college environment are attitudes held and behavior displayed by administrators, faculty members, and women students' peers. These attitudes and behavior may be demonstrated in a variety of ways. For instance, an instructor may make overtly discriminatory comments that rely on sexist humor, that refer to males as "men" but to females as "girls" instead of "women", or comments that disparage women's intellectual ability or women in general (Hall & Sandler, 1982). Faculty members may

also demonstrate differential nonverbal treatment of men and women that oftentimes communicates to women that they are not as worthwhile as men, nor are they expected to participate fully in class or in the college experience (Hall & Sandler, 1985). Examples of this type of differential treatment include making eye contact more often with men than with women, assuming a posture of attentiveness when men speak but not when women speak, habitually standing near men students, and even making direct sexual overtures to women students (Hall & Sandler, 1982). Doyle and Paludi (1991) state that between thirty and seventy percent of undergraduate women are sexually harassed by at least one of their professors during their four years of college.

Yet another way in which discriminatory attitudes and behavior can be demonstrated is through the use of class discussion methods that communicate dissimilar expectations for women and men and that discount women students' importance as valid contributors (Hall & Sandler, 1982). For example, professors may ignore women students, but recognize men students even when women volunteer to participate, call directly on men students but not on

women students, interrupt women students more often than men students, or use classroom examples that reflect stereotyped ideas about men's and women's social and professional roles (Hall & Sandler, 1982). Whatever the behavior, it serves well to reinforce women students' "invisibility" (Hall & Sandler, 1985). Sex discrimination in the education system can be overt or inadvertent, but the net result is that women students are either singled out or ignored because of their sex (Hall & Sandler, 1982).

Not surprisingly, sex discrimination in the university atmosphere has numerous detrimental effects on women undergraduates. Perhaps the single most negative result of sex discrimination in higher education is that women students are simply denied full equality of educational opportunity (Hall & Sandler, 1982). For instance, women students may be discouraged from participating in class discussion or seeking help outside of class because they have come to feel that their contributions are both unexpected and unimportant, and that their academic and career goals are not matters to be taken seriously (Hall & Sandler, 1982). Women students may also be excluded from course-related activities such as field trips that

can further serve to enforce women's perceptions that their academic success is not important. Women students may be forced to drop or avoid certain classes. A survey conducted at the University of California at Berkeley in 1977 by the Vice Chancellor of the University, Ira Michael Heyman, showed that many women students avoided taking certain classes because they met at night or else the final exams for those classes were scheduled at night. Women felt unsafe walking on campus after dark. Women students may also choose to drop or avoid certain classes due to the climate created by overt discriminatory comments known to be made by the instructor (Hall & Sandler, 1985). Additionally, women students may drop certain classes because of sexual harassment. Doyle and Paludi (1991) state that some women students have been known to change their entire educational program as a result of frequent sexual harassment. Finally, women students may be encouraged to change majors in order that they enter "traditionally feminine" fields, and not remain in "traditionally masculine" fields. One measure of sex inequalities in education recognized by Kutner and Brogan (1976) is the percent of

students who are male and female in a given type of school or education program. They further state that there is an indication that females tend to be excluded from "masculine" fields or channeled into "feminine" fields. Also, Doyle and Paludi (1991) conclude that the educational system seems to be directing women and men into different courses. While men are being prepared for the public sphere, women are being readied to take their place in the private sphere.

Another detrimental effect on women students that results from the differential treatment of men and women in the classroom is what Hall and Sandler (1982) call a decline in women's intellectual self-esteem. That is, women students consistently feel less prepared for and less able to do work at the graduate level, women more often than men question whether they belong in the college community, and women feel less confident about their ability to achieve success in the academic and professional arenas (Hall & Sandler, 1982). For instance, women students consistently rate their intellectual abilities lower than do men even though women score higher on most aptitude tests (Russo, 1987). Kutner and

Brogan (1976) found that women undergraduates have lower expectations of success and expect lower grades despite the fact that female students attain slightly higher grades than male students. Further, the difference between women's low expectations and slightly higher achievements increases as the females progress through college. So it seems that the devaluation of women that stems from the sex discrimination in the university setting can be internalized, leading women students to feel that full intellectual development and professional success are unattainable.

Still another deleterious effect of sex discrimination on women students is the actual decline in academic and career aspirations that many women experience during their college years (Hall & Sandler, 1982). Although this may seem like a redundant concept in light of the previously mentioned decline in intellectual self-esteem, the two effects are completely separate. Stein and Bailey (1973) as cited by Kutner and Brogan (1976) demonstrate this by differentiating between the concepts of expectation and aspiration. A decline in intellectual self-esteem refers to an individual's diminished expectation

of success or a decrease in an individual's belief about what he or she will accomplish. However, a decline in academic and career aspirations is reflected by an individual's choice to attempt lower levels of academic or professional difficulty. Barbara Sicherman (1974) found that women note declining interest in careers as the college years progress. She points to the difference between the achievement of schoolgirls and the professional accomplishments of adult women, and refers to this as "one of the most disturbing educational realities of our time" (p.156). Kutner and Brogan (1976) cite Stein and Bailey's (1973) study which reported that academic aspirations are different for males and females, with females' aspirations consistently lower than those of males. These lowered aspirations of women students are in fact reflected in the post graduate behavior of females. Fewer women than men pursue any type of advanced or professional programs that will enable them to obtain higher status and better-paying jobs (Doyle and Paludi, 1991). Additionally, Kutner and Brogan (1976) found that although enrollment of males and females is approximately equal in elementary, secondary, and

undergraduate schools, fewer women than men enroll as graduate students. They further concluded that a much higher percentage of males than females receive graduate and professional degrees, and that "the higher the academic degree, the less likely women are to receive it" (p.56).

The detrimental effects of sex discrimination experienced by women may be further exacerbated by the lack of female role models present in the system of higher education. A survey conducted at the University of California at Berkeley (Heyman, 1977) revealed a common tendency of female students to doubt their own professional competency. This appears to be caused by the absence of female role models. It seems that without female role models, women students have no one with whom to identify and less support for their aspirations (Gappa & Uehling, 1979). It is highly likely that this may further contribute to women students' feelings of inadequacy and low self-confidence.

There is no doubt surrounding the assertion that sex discrimination in higher education has extremely negative effects on women students. However, it is

highly unlikely that discriminatory attitudes and behavior will become completely extinct any time in the near future. It is also fairly obvious that sex discrimination on college campuses will continue to exist for some time. The question is then, how can the detrimental effects of sex discrimination be lessened to allow women the enjoyment of a more equitable educational experience? The creation of awareness and sensitivity concerning sex discrimination through the implementation of women's studies programs may prove to be one effective means of diminishing these negative effects.

The implementation of the first women's studies programs began in the 1969-1970 academic year, and since then, researchers have examined the objectives, purposes, and effects of such programs on both men and women students. Florence Howe (1975) has stated that the thrust of the Women's Studies Movement has been to change the education of women. She suggests that the aim of women's studies courses is to raise the consciousness of women and increase their knowledge about themselves and their history. Another goal of women's studies courses has been defined as the fostering of intellectual

and personal autonomy of women (Sicherman, 1974). Karen Merritt (1984) cited the System Task Force on Women's Studies' (1974) statement that one major purpose of women's studies is to raise the aspirations of women and to increase their confidence in their own abilities. So, it seems, then, that the objectives of women's studies courses, if brought to fruition, would most probably aid in lessening the negative effects of sex discrimination in the educational system.

It appears that the objectives of women's studies courses are well served by not only the content of these courses, but also by the pedagogical style. The various strategies employed in these courses fosters a positive climate in which women can participate fully in the learning experience. Lord (1982) examined the teaching-learning model utilized in a psychology of women class and demonstrated how this model can benefit women by exposing them to a more equitable educational experience. Traditional courses have consistently overlooked women, so by examining female development and experience, and by referring to the female as the human model, the concept of femaleness is made visible (Lord, 1982). In

her model, the women's studies course is constructed in such a way that the student is made to take responsibility for her own learning. The professor of the course is looked upon not as an authority figure, but as a resource for students (Sicherman, 1974). Lord (1982) states that by taking the power away from the professor and putting it into the hands of the students, the students are encouraged to become more involved in the class and less dependent on the professor for their understanding of the material. Students also begin to view their own perceptions, feelings, and experiences as valid and important. Sicherman (1974) recommends this classroom structure, saying that it creates a shared learning experience in which the student becomes an active contributor to her own education. Such a pedagogical style could prove to be a valuable skill for women who find themselves in an educational environment that may not be wholly supportive of their intellectual development.

The question now has to be asked, are these programs effective? Vedovato and Vaughter (1980) found that psychology of women courses had a significant impact on female students' attitudes regarding women's role in

society, and toward their own gender role identity. In general, women students' attitudes toward women are more liberal after taking a women's studies course (Scott et al., 1977). Sicherman (1974) advocates the effectiveness of these programs, stating that "courses that reveal the actual experiences of women make women visible for the first time as important subjects and even as role models." She further points out that this can heighten motivation and self-confidence for many women students. Elovson and Cockroft (1977) as cited by Gappa and Uehling (1979) found that women's studies courses and programs foster increased self-understanding, self-esteem, and self-confidence, and induce higher academic and career goals.

Based on these findings, the hypothesis of this research is that intervention programs offering education about various aspects of sex discrimination using a feminist teaching style will aid in reducing the negative impact that such discrimination has on women students. Women exposed to these interventions will be more aware of actual instances of sex discrimination in their own academic environment, and will be less likely to feel that this discrimination poses obstacles to their own

academic and professional achievement. In addition, these women will feel more confident in their own ability to perform in the academic setting, and experience less of a decline in academic and career aspirations. Furthermore, the likelihood that women will succumb to the negative effects of sex discrimination will decrease as the level of intervention that they are exposed to increases.

Method

Subjects

Thirty-nine female undergraduates attending the University of Richmond served as participants in this study. Twenty-eight of these subjects participated in this study for credit in an introductory psychology course. The remaining eleven subjects were voluntary participants who had completed the Psychology of Women course, or who were currently members of the Women Involved in Living and Learning program. The consent of every subject was obtained before participation in the study began.

Due to the four-night length of the experiment, there was some subject mortality. While the control group was made up of thirteen subjects at the outset, by

the end of the study, there were only ten in this group. Similarly, the moderately aware group began with fifteen subjects, but one subject dropped out, bringing the number of subjects to fourteen. The highly aware group was also affected by subject mortality even though this part of the experiment was only two nights. This group began the study with eleven subjects, but ended with only nine.

Materials

Eight different readings were used. Four of these readings served as the basis for the four discussions concerning various aspects of sex discrimination in higher education. These readings were excerpts taken directly from "The Classroom Climate: A Chilly One for Women?" by Roberta Hall and Bernice Sandler (1982).

They addressed overtly discriminatory comments, nonverbal differential treatment of male and female students, sexist class discussion methods, and coping mechanisms that can be used to combat sex discrimination. (See Appendix A for copies of each of these readings.) The remaining four readings were used as the basis of discussions conducted with the control group. These

consisted of a series of excerpts from various psychology textbooks, and materials available in the Counseling and Psychological Services Office of the university, and they concerned gender differences in verbal communication patterns and nonverbal communication styles, gender differences in learning strategies and study skills, and stress management techniques. (See Appendix B for copies of each of these readings.) Two questionnaires concerning sex discrimination on this campus were also used. The first questionnaire addressed any sex discrimination that the subjects had previously been exposed to during their college experience. The second questionnaire dealt with any sex discrimination that the subjects experienced while they were participating in this study. (See Appendix C for copies of each of these questionnaires.)

Design & Procedure

The twenty-eight introductory psychology students were divided into two groups. One group of introductory psychology students served as the control group, while the other group was an experimental group who are referred to as the moderately aware group. The eleven women's

studies students made up an additional experimental group referred to as the highly aware group. The first two groups each participated in four sessions. These sessions were conducted using the pedagogical techniques described by Lord (1982). Discussion among all members of the group was emphasized, and involvement of all subjects was encouraged. The moderately aware group participated in discussion sessions concerning sex discrimination in the college environment. The control group attended discussions covering the topics of gender differences in communication patterns, differences in learning techniques, and stress management skills.

Due to the reluctance on the part of potential subjects to sign up initially, the experiment was run twice. The first time, there were nine subjects in the control group and thirteen subjects in the moderately aware group. The second time, there were four subjects in the control group and two subjects in the moderately aware group.

On Day One of the experiment, all subjects were told that the current study was undertaken to examine gender differences in the perception of the college

environment. The subjects were told to complete a questionnaire that asked about some of their perceptions of college. The subjects were told that their anonymity would be preserved, and so were asked to fill out the questionnaires as honestly and as accurately as possible. The subjects were also asked not to discuss the experiment with anyone else due to the personal nature of the questionnaires.

In actuality, the first questionnaire that the control subjects filled out asked them whether they had been exposed to various types of sex discrimination while they had been in college. The subjects were then asked to read the first in a series of four short papers, after which they participated in a discussion concerning this paper. The goal of this discussion session was to teach subjects about gender differences in verbal communication patterns. At the end of this session, the subjects were given another questionnaire which they were asked to fill out the next day based upon what they observed in their classes. The subjects were told to return the questionnaire the next evening when they participated in the second discussion session. Three

additional sessions employing a similar format were held on consecutive evenings. In these sessions, the subjects learned about the gender differences that exist in nonverbal communication patterns, the gender differences in learning methods and study skills, and the strategies that they could use to cope with the stress that they encountered at the college level. At the end of each session, the subjects were given the second questionnaire and asked to complete it and return it the next day.

The moderately aware group was also asked to complete the first questionnaire and then participated in a discussion session based on the paper that they read. During this discussion, subjects learned about overtly discriminatory comments made in the college setting and the harm that these comments can cause undergraduate women. The feelings that these comments created in the subjects were also discussed. At the end of this discussion, the subjects were given the second questionnaire and asked to complete it the next day according to their observations in class. These subjects also returned the questionnaire the next evening when they arrived to participate in their second session. The three additional sessions that

these subjects participated in were designed to help subjects become aware that nonverbal differential treatment of male and female students and sexist methods of conducting class discussion exist in institutions of higher learning, and that there are coping strategies available to deal with sex discrimination in the college setting. The subjects in this group were also given the second questionnaire at the end of each session and asked to fill it out and return it the next day.

After both the control group and the moderately aware group had completed the experiment, the highly aware group began participation. Again, because of initial reluctance to participate on the part of potential subjects, this part of the experiment was run twice, with seven subjects the first time and four subjects the second time. This group underwent the same procedure as the moderately aware group, except that these subjects only attended two sessions, with two readings addressed each night. These subjects were only asked to attend two sessions because the original four-night length made it extremely difficult to find subjects willing to participate. The subjects were given the first of the two

questionnaires at the beginning of the first session. They then participated in two discussions concerning sex discrimination in higher education. These subjects were also given the second of the two questionnaires after every session, and asked to complete it and return it the next day.

Results

Data from three questionnaires completed by the three groups were examined by a $3 \times 3 \times 15$ (Group \times Order of Questionnaire \times Survey Item) multiple analysis of variance. Because subjects in the first two groups filled out five questionnaires, only the first, third, and fifth questionnaires completed by these groups were used in this analysis.

The Wilks multivariate test of significance revealed the group \times order of questionnaire \times survey item interaction to be nonsignificant, $F(60, 330) = .86, p > .05$. The Wilks test also yielded a nonsignificant interaction between questionnaire and survey item, $F(30, 168) = 1.08, p > .05$. However, the significant group \times survey item interaction, $F(30, 168) = 2.54, p < .01$, lent a considerable amount of support to some of the hypotheses

of this study. Univariate F-tests further revealed that the three groups' responses were significantly different on five of the fifteen items on the questionnaire. Subjects' reports differed significantly in response to the item concerning professors putting down particular females, $F(2, 98) = 5.24, p < .01$. The Student Newman-Keuls showed that the highly aware group was more sensitive to derogatory comments aimed at certain women than the control group.

Insert Table 1 about here

The subjects also responded differently to the item pertaining to professors' use of jokes derogatory to women, $F(2, 98) = 3.71, p < .05$. The Student Newman-Keuls test found that subjects in both the highly aware and the moderately aware groups noticed derogatory jokes about women more than the subjects in the control group.

Insert Table 2 about here

There was a significant difference in subjects' responses

to the item asking whether professors give men and women the same assistance in completing class assignments, $F(2, 98) = 5.05, p < .01$. Pairwise comparisons using the Student Newman-Keuls procedure revealed the control group reporting similar assistance more often than either the moderately aware group or the highly aware group. The item asking whether professors call on all

Insert Table 3 about here

students in the same manner also yielded significantly different responses between groups, $F(2, 98) = 5.14, p < .01$. The Student Newman-Keuls illustrated that the moderately aware group perceived similar methods of calling on men and women more often than the highly aware group.

Insert Table 4 about here

Finally, significant differences were found on the item concerning professors' use of "man" and masculine pronouns in reference to humankind, $F(2, 98) = 5.47, p < .01$. Table 5 shows that the Student Newman-Keuls test revealed

that the moderately aware group noticed less gender fair language than either the highly aware group or the control group.

Insert Table 5 about here

An additional $2 \times 5 \times 15$ (Group \times Order of Questionnaire \times Survey Item) multiple analysis of variance was performed using data from the five questionnaires completed by the control group and the moderately aware group. As was the case previously, the Wilks multivariate test of significance yielded a nonsignificant interaction between group, questionnaire, and survey item, $F(60, 424) = .928, p > .05$. The Wilks test also showed that the interaction between questionnaire and survey item was nonsignificant, $F(60, 424) = .678, p > .05$. Predictions were supported by the significant interaction between group and survey item, $F(15, 108) = 4.76, p < .01$. Univariate F-tests revealed that the two groups had significantly different responses on eight, as opposed to five in the other analysis, of the sixteen questions analyzed on the survey. Generally, the moderately aware

group appeared more sensitive to subtle classroom biases that are unfavorable to women students. The moderately aware group noticed professors putting down particular women in their classes ($\bar{M} = 1.38$) more than the control group ($\bar{M} = 1.17$), $F(1, 122) = 6.56$, $p < .05$. The moderately aware group also noticed professors referring to females as girls and to males as men ($\bar{M} = 1.92$) significantly more often than the control group ($\bar{M} = 1.42$), $F(1, 122) = 22.90$, $p < .01$. The moderately aware group reported hearing more jokes that were derogatory to women ($\bar{M} = 1.40$) than the control group ($\bar{M} = 1.10$), $F(1, 122) = 14.14$, $p < .01$. In response to the item asking whether professors give equal assistance to men and women in completing class assignments, the moderately aware group reported this happening less ($\bar{M} = 1.50$) than the control group ($\bar{M} = 1.85$), $F(1, 122) = 7.03$, $p < .01$. This was also the case in response to the item asking whether professors call on women and men equally to contribute in class. The moderately aware group noticed less opportunity for equal contribution in class than the control group. Means for the groups were 1.75 and 2.04 respectively. The moderately aware group reported

being interrupted by professors more frequently ($\bar{M} = 1.82$) than the control group ($\bar{M} = 1.56$), $F(1, 122) = 8.32$, $p < .01$. Finally, the moderately aware group noticed the use of "man" or masculine pronouns in reference to all human beings significantly more ($\bar{M} = 2.51$) than the control group ($\bar{M} = 2.07$), $F(1, 122) = 17.13$, $p < .01$. There was one puzzling finding concerning subjects' reports of professors calling on all students in the same manner. This particular finding was significant in the opposite direction of the previous findings with the moderately aware group reporting more similarity in the treatment of men and women than the control group. Means for the groups were 1.97 and 1.59 respectively, $F(1, 122) = 7.60$, $p < .01$.

Discussion

The findings of this study show that women's studies experience can lead to greater awareness of the inadvertent biases against women in the American college classroom. The results generally demonstrate that subjects exposed to literature and discussion with feminist leanings or to a long-term curriculum of women's studies courses were more sensitive to some of the inequalities that can

sometimes oppress women students. Evidence suggests that attitudes toward women and women's roles in society can be changed in a feminist or liberal direction by participation in discussions of feminist issues or in a women's studies course (Scott et al., 1977; Vedovato & Vaughter, 1980; Abernathy et al., 1977). The increase in awareness demonstrated by the subjects in this study could represent the first step in the journey toward the development of increasingly proliberationist beliefs about women's roles in society and particularly in the college classroom. The development of feminist beliefs can be seen as a worthy goal because, as Vedovato and Vaughter (1980) state, much theoretical analysis points to changes in gender role definitions as central to the elimination of the "male-biased social system in which females and feminine-defined traits are devalued" (p.587).

The subjects exposed to both levels of feminist education showed increased sensitivity to disparaging remarks directed toward particular females and to derogatory jokes about women in general, and greater awareness of inequalities in the amount of classroom assistance given by professors. Additionally, subjects with only moderate

exposure to women's education exhibited higher cognizance of unequal ways that professors refer to males and females, unequal opportunity to contribute to class discussion, and of being interrupted by professors in comparison to control subjects. It is hopeful that the higher awareness displayed by these subjects will lead to a better understanding of the differential treatment of men and women students in the university classroom. Based on Ross and Nisbett's (1991) work, it seems possible that a better understanding of the gender inequalities present in the college classroom can aid in the creation of strategies for overcoming them and the discovery of a potential remedy for the currently unequal classroom status quo.

Some findings of the current research were significant in directions that went against predictions. For instance, subjects exposed to moderate levels of women's education noticed the use of "man" and masculine pronouns more often than the control group and the highly aware group. Lord (1982) reports that the use of only male referents makes the concept of "femaleness" invisible. Because subjects in the moderately aware group were recently

made cognizant of the visibility of "femaleness", they are apt to recognize the discrepancy between this visibility and the exclusive use of male referents, and therefore notice the use of masculine pronouns more often than control subjects. The reason that these subjects notice this behavior more often than subjects with a high amount of feminist education is that the highly aware subjects are heavily involved in women's studies classes. It seems fairly obvious that the professors of these courses are aware of feminist principles and actively demonstrate feminist practices as in Lord's (1982) pedagogical model. It is possible then that the highly aware subjects simply are not exposed to classroom environments in which only male referents are used.

One other finding that did not completely support predictions revealed that subjects exposed to moderate levels of feminist education noticed the highest amount of similarity in the manner in which professors address men and women students. The fact that the highly aware group noticed more of a discrepancy between the ways in which men and women students are addressed should not really come as a surprise when one considers that women

who are highly involved in women's education are most likely to be more sensitive to this type of subtle discrimination than women that have not been as heavily involved in women's studies. However, what is puzzling about this finding is that moderately aware subjects also reported more similarity in the manner in which professors address male and female students than control subjects. The reasons for this are unclear, although an explanation may lie in the possibility that control subjects simply did not attend to professors' modes of addressing students.

There were seven questions on the survey that did not yield significant results. Subjects did not have different reports of professors making disparaging comments about women's intellectual ability, or of professors interrupting academic discussions in order to comment on students' physical appearance. Subjects did not notice different amounts of eye contact with professors, or differing levels of flirtatious behavior displayed by professors. Subjects did not demonstrate differing levels of awareness concerning professors' practice of standing near mostly women students. Lastly, subjects

did not report differences in the amount of their participation that was limited in course-related activities or in the amount of time students were given to express themselves in class. Perhaps the most obvious explanation for these nonsignificant findings is that these types of potentially discriminatory behavior simply do not occur at this university. This may especially be the case in women's studies classes where the professors most likely espouse feminist ideologies and exhibit feminist practices. Kutner and Brogan (1976) state that the amount of sex discrimination experienced is in part a function of the particular education setting. The University of Richmond seems to be an educational setting that is not conducive to the demonstration of discriminatory kinds of behavior. Incidentally, this may also be the reason for the generally infrequent occurrences of the other subtly biased kinds of behavior that are noticed.

Another explanation for these nonsignificant results is that these kinds of differential behavior were merely not attended to by subjects. Perhaps the readings that the moderately aware and highly aware groups were given did not emphasize these particular types of potentially

discriminatory actions enough to merit the subjects' awareness of this behavior.

Yet another explanation for the nonsignificant findings is the small number of subjects that was employed. Most of the subjects in the control and moderately aware groups were first year students. A larger number of subjects probably would have brought a greater range of experience into the study, and might have helped the responses to the nonsignificant items reach significance. In fact, the small number of subjects was also probably the major contributor to the nonsignificance of the group x order of questionnaire x survey item interactions and of the order of questionnaire x survey item interactions. Also, a repeated measures design should have been used. Due to experimenter naivete however, a repeated measures design was not used which is a possible reason why the order of the questionnaires was not significant.

Some of the most intriguing findings of this experiment were not subject to any statistical analysis. These dealt with the emotions that the subjects reported feeling as a result of classroom experience. Initially, the most eye-catching finding is that a higher percentage

of subjects in the moderately aware group reported feeling every emotion than either the control group or the highly aware group. (See Appendix D for percentages of group reports for each emotion.) As we have seen, discussion of feminist issues can change subjects' feelings about women and women's roles. The subjects in the moderately aware group did display increased awareness of subtle biases against women students. These subjects may have been influenced to acknowledge their emotional reactions to newly heightened awareness more than the subjects in the other groups, and so reported them more often than other subjects. In addition, the highly aware subjects may have already experienced an intense level of emotion when they first became involved in women's studies, but it has been channeled in other directions with experience.

The emotions that are of particular interest are those that appeared to generate the most response from all groups. The first of these is the level of stupidity felt by each group. A greater percentage of subjects in the moderately aware group reported feeling stupid than in either the control group or the highly aware group.

Also, subjects in the control group reported feeling stupid because they didn't know answers in class or on quizzes, or because they failed a class. Subjects in the moderately aware group however, attributed their feelings of stupidity more to discriminatory behavior such as the professor singling them out, interrupting them, or making jokes about women. It seems likely that these attributional differences could be due to the increased awareness of discriminatory behavior shown by subjects in the moderately aware group. The subjects in the highly aware group reported feeling stupid least frequently. One reason for this could be that prolonged exposure to women's studies courses produces gains in performance-self-esteem (Stake, 1979) and therefore decreases feelings of stupidity.

Another emotion that generated interesting findings was "pleased". Again, more subjects in the moderately aware group reported being pleased than subjects in either other group. Also, as before, control subjects were pleased when they knew an answer in class, whereas moderately aware and highly aware subjects were more often pleased when professors used gender fair language

and attempted to be non-sexist in conducting class. It seems here that subjects exposed to women's education more readily recognize the benefits of equality in the classroom.

Still another emotion that revealed interesting findings was anger. Subjects in the moderately aware group reported being angry more often than any other subjects, and this appears to be the result of exclusive use of male referents and derogatory jokes made about women. Abernathy et al. (1977) reported that a feminist consciousness raising experience fosters "emancipation from traditional feminine role restrictions regarding the expression of anger" (p.146). Because of their feminist education, the moderately aware subjects may have felt freer to report their anger than the control subjects. The reason that these subjects expressed more anger than subjects in the highly aware group may be that the highly aware subjects have had more time to come to terms with their anger, and therefore feel it less intensely.

The final emotions that generated intriguing results were "singled out" and "embarrassed". These are presented

together because in most cases, these feelings were reported together and for the same reasons. Far more moderately aware subjects reported feeling singled out and embarrassed than subjects in the other groups, and these subjects more often reported feeling this way as a result of being pointed out or lectured at, or of hearing jokes derogatory to women than subjects in other groups. Due to their increased sensitivity to these kinds of discriminatory behavior, the subjects in the moderately aware group may have also become more aware of the ability of discriminatory behavior to make women students feel singled out.

What all of these findings seem to suggest is that exposure to feminist education can help women students begin to view their emotions more as reactions to aspects of the classroom climate, and less as results of internal strengths and weaknesses. This is encouraging because if women can learn to attribute their negative emotions to classroom inequalities, they may also begin to separate themselves from the possible harm caused by discriminatory behavior. It seems that a fruitful line of research focusing on the emotional responses of women undergoing

feminist education could be pursued.

For this author, perhaps the most exciting findings resulting from this section of the questionnaire appeared in the free comments section. Initially, subjects in both the moderately aware group and the control group commented that gender-related issues had either not taken place or had not been noticed. However, toward the end of the study, subjects in both groups began reporting incidents of discriminatory behavior that they said they would not have noticed prior to their participation in the study. Although subjects in the control group did not read about sex discrimination, the material they read came from various women's psychology books that had somewhat of a feminist tone. What this finding suggests then is that some level of feminist education took place in both the control group and the moderately aware group. It is encouraging to note that even a small amount of indirect feminist education can have an effect on the perceptions of students.

While the results of the current research seem to point to some possible benefits of women's education, it is important to remember that they are more exploratory

than confirmatory. If research like the present study is conducted in the future, a larger number of subjects should be used. Perhaps the moderate level of intervention should be more intense as well. Finally, the educational setting in which this type of research is conducted should include more variability in both the student and faculty population. For instance, it would be interesting to include men in the experiment, and run both single-sex and mixed groups of subjects.

The findings of the current study further contribute to the body of literature that suggests that exposure to women's education may help put women en route to developing more liberated attitudes about women and women's roles in the college classroom. The potential benefits of proliberationist views of women's roles may include broadening women's options so that they could make maximum use of their abilities (Carnegie Commission on Higher Education, 1973). Ultimately, the hope is that all students, women and men, will be able to participate in an equitable learning environment.

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Table 1

Student Newman-Keuls Pairwise Comparisons of Mean Group
Responses to Survey Item #3

Group	Group	
	2	1
3	.25	.45*
2		.20

*significance at the .05 level

Table 2

Student Newman-Keuls Pairwise Comparison of Mean Group
Responses to Survey Item #6

Group	Group	
	2	1
3	.09	.33*
2		.24*

*significance at the .05 level

Table 3

Student Newman-Keuls Pairwise Comparison of Mean Group
Responses to Survey Item #10

Group	Group	
	3	2
1	.35*	.47*
3		.12

*significance at the .05 level

Table 4

Student Newman-Keuls Pairwise Comparison of Mean Group
Responses to Survey Item #13

Group	Group	
	1	3
2	.25	.58*
1		.33

*significance at the .05 level

Table 5

Student Newman-Keuls Pairwise Comparison of Mean Group
Responses to Survey Item #16

Group		
Group	3	1
2	.33*	.37*
3		.04

*significance at the .05 level

Appendix A

Reading #1 for group two. From Hall, R. M., & Sandler, B. R. (1982). The classroom climate: A chilly one for women? Project on the Status and Education of Women, Association of American Colleges, pp. 5-6.

The Power Of Words

Overtly discriminatory comments on the part of faculty are still surprisingly prevalent. These comments are often intentional-although those teachers who engage in them may be unaware of their potential to do real harm. They may occur not only in individual student-teacher interchanges, but also in classrooms, office consultations, academic advising situations and other learning contexts.

There are some indications that overtly sexist verbal behavior on the part of faculty may be most concentrated in those fields and institutions where women are relative newcomers, and that it often increases in both intensity and effect at the graduate level.

The invidious nature of such comments can perhaps best be understood by comparing them to similar racial remarks. Few, if any, professors would make disparaging comments about blacks' seriousness of purpose or academic commitment, or use racist humor as a classroom device. (In order to experience the derogatory nature of such

comments, the reader may wish to substitute the word "black" [or other minority] in the examples that follow):

- comments that disparage women in general, such as habitual references to "busy-body, middle aged women," statements to the effect that "women are no good at anything," or the description of a class comprised solely of women as a "goddamn chicken pen."

- comments that disparage women's intellectual ability, such as belittling women's competencies in spatial concepts, math, etc., or making statements in class discussion such as "Well, you girls don't understand..."

- comments tht disparage women's seriousness and/or academic commitment, such as "I know you're competent, and your thesis advisor knows you're competent. The question in our minds is, are you really serious about what you're doing?" or "You're so cute. I can't see you as a professor of anything."

- comments that divert discussion of a woman student's work toward a discussion of her physical attributes or appearance, such as cutting a student off in mid-sentence to praise her attractiveness, or suggesting that a student's sweater "looks big enough for both of us."

(While such comments may seem harmless to some professors, and may even be made with the aim of complimenting the

student, they often make women uncomfortable because essentially private matters related primarily to the sex of the student are made to take precedence over the exchange of ideas and information.)

- comments about women faculty that define them in terms of their sex rather than their professional status (e.g., "It must be that time of month") or that disparage their professional accomplishments, such as greeting the announcement of a female colleague's book with "After all, it's only her dissertation, and you know her [presumably male] advisor must have written most of that." (Such comments can be especially damaging, since the attitudes and behaviors of women faculty, and of male faculty toward them, is often "the most direct evidence available to students of both sexes of what it means to be a professional woman in our society.")

- comments that refer to males as "men" but to females as "girls," "gals," etc. rather than "women." This non-parallel terminology implies that women are viewed as similar to children and thus less serious or capable than men.

- comments that rely on sexist humor as a classroom device, either "innocently" to "spice up a dull subject," or with the conscious or unconscious motive of making women feel uncomfortable. Sexist humor can range from

the blatantly sexual, such as a physics lecture in which the effects of a vacuum are shown by changes in the size of a crudely drawn woman's "boobs," or the depiction of women in anatomy teaching slides as Playboy centerfolds, to "jokes about dating, about women students waiting to be called by men, etc.-i.e., the usual fooling around which relies on a certain bad taste (usually depicting women in a sexual context which is typically derogatory) in order to create a lively atmosphere in class."

- comments that disparage scholarship about women, or that ridicule specific works because they deal with women's perceptions and feelings. Such comments can reinforce students' perceptions that what men think, feel and do is important, while women's roles, actions, and feelings are not worth learning about.

Often, faculty feel that overtly sexist comments and related behaviors are trivial, or "facts of life"-accepted and harmless features of everyday conversation. In some instances, teachers may simply speak out of habit with no ill intent. In other instances, however, teachers themselves may be uncomfortable with women students, have a restricted view of women's abilities and roles and/or be consciously or unconsciously hostile toward women. Some teachers may unknowingly use sexist humor to relieve their own anxieties or hostilities.

Just as they may arise from several motives, overt comments disparaging to women may be intended to serve a variety of purposes. For example, sexist humor may ostensibly be designed to foster collegiality between a teacher and the class. However, it may have the opposite effect on female students: sexist humor and other overtly disparaging comments may in fact alienate women students (and some male students as well) and thus directly affect the climate of the class as a whole. As a women's caucus at one western university notes, "The psychological undermining of... female students' confidence and self-esteem is ritualized through sexist joles and comments...This patronizing of female students, in both its subtle and gross forms, impedes, if not destroys, intellectual exchange between female students and male faculty members (and female faculty members who have adopted the same posture)."

Some faculty may also intentionally (or inadvertently) use sexist comments, and/or inappropriately personal or sexual references, in order to annoy or distract women, or to trivialize women's contributions, especially in circumstances where performance is being evaluated. (This sort of behavior is often reported by professional women, and also by women graduate students, one of whom, for example, cites being distracted by a male examiner's

inappropriate comments in the middle of an oral examination.)

Whether or not their intended purposes are "innocent," sexist humor and overtly sexist comments can interfere with classroom learning and have negative effects that go far beyond the immediate classroom or related learning situation.

Reading #2, from Hall, R. M., & Sandler, B. R. (1982).
The classroom climate: A chilly one for women? Project
 on the Status and Education of Women, Association of
 American Colleges, pp. 6-7.

The Classroom's Silent Language

Like verbal behavior, nonverbal and other behaviors can also help shape classroom climate. A professor's nonverbal behavior can signal inclusion or exclusion of group members; indicate interest and attention of the opposite; communicate expectation of students' success or failure; and foster or impede students' confidence in their own abilities to learn specific tasks and procedures.

General studies of nonverbal behavior show that women may be more sensitive to nonverbal cues than men are. Consequently, women students are especially likely to benefit from behaviors that recognize them as individuals and encourage them—for instance, making eye contact and nodding. Additionally, women are very apt to pick up on "mixed signals"—such as verbal encouragement that is coupled with nonverbal behavior which indicates a lack of interest or attention (moving away, looking elsewhere, shuffling papers).

Observations of classroom interactions, as well as general studies of nonverbal behavior in everyday situations,

indicate that girls and women often receive and give different nonverbal cues than boys and men do. These differences may well arise from differences in the perception of ability, value and status traditionally associated with men and women. As mentioned previously, classroom observations at the elementary level show that teachers more frequently talk to boys no matter where they are in the classroom, but to girls only when they are nearby. Thus, boys tend to command active teacher attention regardless of closeness to or distance from the teacher, while girls do not.

Moreover, patterns of male-female interaction typical in society at large may well be carried over into the classroom setting. For example, both in and out of class, men tend to claim more physical space than women (e.g., outstretched arms rather than arms folded, sprawling posture, etc.) to make greater use of assertive and attention-getting gestures, to maintain eye contact rather than to avert their gaze, and to use touching as a way to assert power or dominance.

Faculty may treat men and women students differently in the following manner:

- making eye contact more often with men than with women, so that individual men students are more likely to feel recognized and encouraged to participate in

class. (One teacher, for example, concerned because few women took part in discussion, learned from her students that she tended to ask a question and then to make eye contact with men only, as if only men students were expected to respond.)

- nodding and gesturing more often in response to men's questions and comments than to women's.

- modulating tone (for example, using a tone that communicates interest when talking with men, but a patronizing or impatient tone when talking with women).

- assuming a posture of attentiveness (for example, leaning forward) when men speak, but the opposite (such as looking at the clock) when women make comments.

- habitually choosing a location near men students. (Proximity in the college classroom may invite comments primarily from those sitting close by.)

- excluding women from course-related activities, such as field trips, or attempting to discourage their participation because women are "too much trouble," etc. (Such exclusion is illegal under Title IX.)

- grouping students according to sex, especially in a way which implies that women students are not as competent as or do not have status equal to men. Women students, for example, have reported that some teachers insist there be no all-woman lab teams because women

cannot handle laboratory equipment on their own. (Other professors may group the women together "so they can help each other," or so that they "don't delay the men.") Some women have reported certain professors instruct male medical students to "scrub" with the faculty but women medical students with nurses. These kinds of arrangements may not only lead women students to doubt their competence, but also prevent women-for whom "hands-on experience" can be especially important in building confidence-from learning as much as men students.

- if men students are expected to-and do-take over lab procedures, women are likely to be observers rather than participants.

- "scrub" sessions may serve as informal learning circumstances from which women are excluded as learners and simultaneously "put in their place" as support professionals in the traditionally female field of nursing rather than as full colleagues.

- favoring men in choosing student assistants. In many institutions, men are still more likely than women to be chosen by faculty for these positions, which can provide students contact with faculty and opportunities for learning new skills and building confidence. Moreover, such course-related work experience with faculty can play a crucial role in sponsorship for jobs and admission

to graduate and professional programs.

- giving men detailed instructions in how to complete a particular problem or lab assignment in the expectation they will eventually succeed on their own, but doing the assignment for women-or allowing them to fail with less instruction.

- allowing women to be physically "squeezed out" from viewing a laboratory assignment or a demonstration. This sort of physical exclusion can interfere with women students' opportunity to learn on their own.

- making direct sexual overtures. Direct sexual harassment by faculty can lead women students not only to feel threatened, but also to perceive that they are viewed by faculty primarily in sexual terms, rather than as individuals capable of scholastic and professional achievement.

Reading #3, from Hall, R. M., & Sandler, B. R. (1982).
The classroom climate: A chilly one for women? Project
on the Status and Education of Women, Association of
American Colleges, pp. 7-9.

Subtle Messages in Class Participation Patterns

Subtle and inadvertent differences in the ways faculty treat men and women students can dampen women's participation and lead them to doubt the value of their contributions. In mixed-sex college classrooms, even the brightest women students often remain silent, although they may submit excellent written work and will frequently approach a teacher privately after class to follow up on issues raised earlier. Indeed, it has come to be taken for granted by many faculty and students alike that men will usually dominate the discussion in college classrooms, and many researchers have confirmed that women students are less likely to be verbally aggressive in coeducational settings. Although women's silence can put them at a considerable disadvantage - not only in an academic but also in a career setting - only recently has the pattern of less participation by women become a matter for concern and research.

In many classes, women postsecondary students are called on less often than men students, and some women simply remain silent. However, as mentioned earlier,

those women students who do make an effort to participate may find that their comments are disproportionately interrupted by teachers and by male classmates, and/or that faculty are less likely to develop their points than those made by men students. Cumulative classroom experiences such as these can contribute to women students' feeling and acting as though their opinions are of little importance - neither sought out nor listened to.

Factors that may make it difficult for women to participate in class, but that may occur without the full awareness of either students or faculty, are discussed in the following sections. They include:

- everyday inequities in the ways men and women talk - especially in task-oriented group situations - that may be carried over into the classroom;
- faculty behaviors in initiating and managing class discussion that can inadvertently reinforce these patterns and discourage women's participation;
- features of the college classroom as a "masculine" and competitive setting for discussion that can put some women students at a disadvantage; and
- characteristics of women's classroom "style" - as contrasted to that of men - which may lead women's comments to be taken less seriously than men's.

Everyday inequities in talk that may be carried into the

classroom

Despite the popular notion that in everyday situations women talk more than men, studies show that in formal groups containing men and women:

- men talk more than women;
- men talk for longer periods and take more turns at speaking;
- men exert more control over the topic of conversation;
- men interrupt women much more frequently than women interrupt men; and
- men's interruptions of women more often introduce trivial or inappropriately personal comments that bring the woman's discussion to an end or change its focus.

Not only do men talk more, but what men say often carries more weight. A suggestion made by a man is more likely to be listened to, credited to him, developed in further discussion, and adopted by a group than the same suggestion made by a woman. (The difficulty in "being heard" or "having their comments taken seriously" has often been noted by women in professional peer groups and is strikingly similar to those cited by some women college students.)

All too often neither faculty nor students are aware of these patterns of behavior - and it is them that they can do the most harm. Without knowing precisely

why, individual women students may come to feel and to behave as though they are marginal participants in the academic enterprise.

Ways of Conducting Class Discussion that Can Discourage Women Students

Teachers themselves may inadvertently reinforce women students' "invisibility," and/or communicate different expectations for women than for men students. Faculty behaviors that can have this effect include but are not limited to the following:

- ignoring women students while recognizing men students, even when women clearly volunteer to participate in class. (This pattern, which may lead individual women students to feel "invisible," parallels the experiences of many women in professional meetings or other formal groups, who often raise their hands to no avail while man after man is recognized by the chair.)

- calling directly on men students but not on women students. Male faculty, especially, may tend to call directly on men students significantly more often than on women students. This may occur because faculty unconsciously presume men will have more of value to say and/or will be more eager to speak up. Sometimes, however, faculty may wish to "protect" women students from the "embarrassment" they assume women may feel

about speaking in class, and thus simply discount them as participants.

- calling men students by name more often than women students. Sometimes faculty are surprised to discover that they know the names of proportionately more men students than women students in their classes. Calling a student by name reinforces the student's sense of being recognized as an individual. (Students of both sexes should be addressed in "parallel" terms...last names for both, or first names for both. Dalling men by last name but women by first name implies that women are not on a par with men as adults or as future professionals.)

- addressing the class as if no women were present. Asking a question with "Suppose your wife..." or "When you were a boy..." discounts women students as potential contributors.

- "coaching" men but not women students in working toward a fuller answer by probing for additional elaboration or explanation (for example, "What do you mean by that? Why do you see it as a major turning point?"). This pattern, which has been identified at the elementary level, may communicate to the male student who is engaged in dialogue not only that his point is important, but also that he has the ability to answer the question, and can succeed if he tries harder. If women are not "coached,"

they do not get the same reinforcement to respond to intellectual challenges.

- waiting longer for men than for women to answer a question before going on to another student. Studies at the elementary level indicate that teachers tend to give brighter students more time to formulate a response. Initial observations by researchers suggest that this pattern may also affect teachers' interaction with students on the basis of sex. If so, this may both reflect and reinforce women students' classroom reticence. Like interrupting women, giving women less time to answer a question may subtly communicate that women are not expected to know the answer. (Men's silence following a question may be more likely to be perceived as due to reflection or to the effort to formulate an answer, women's to "shyness" or lack of a suitable response.)

- interrupting women students (or allowing them to be disproportionately interrupted by their peers). As discussed previously, this may seem so natural that it may be "invisible." However, it may lead some women to wonder about the worth of their comments, and/or to withdraw from attempts to participate in class.

- asking women students questions that require factual answers (lower order questions) while asking men questions that demand personal evaluation and critical

thinking (higher order questions). Such a pattern presumes, and subtly communicates to women students, that they may not be capable of independent thought.

- responding more extensively to men's comments than to women's comments. This pattern may be exacerbated because men students may also be more likely to pay more attention to and to pick up on each other's comments, but to overlook those made by women. Thus, men students may receive far more reinforcement than women for intellectual participation.

- crediting men's comments to their "author" ("... as Bill pointed out") but not giving authorship to women's comments. Giving authorship is a way of providing acknowledgement, praise, and reinforcement in the course of developing a point. Women are likely to be especially discouraged if authorship of their comments or suggestions is given to male speakers who restate or develop women's statements as though they were their own.

- making seemingly helpful comments which imply that women are not as competent as men. Comments such as "I know that women have difficulty handling this equipment, but I'll be glad to help you after class" are likely to reinforce the individual student's and the class' perception that she - and perhaps women as a group - are deficient in some skills. Moreover, they

may imply that some fields require "masculine" skills and women who choose them are apt to encounter inordinate difficulty.

- phrasing classroom examples in a way which reinforces a stereotyped and negative view of women's psychological traits, such as a description of a female character in literature as "typically weak and irrational."

- using classroom examples that reflect stereotyped ideas about men's and women's social and professional roles, as when the scientist, doctor, or accountant is always "he," while the lab assistant, patient, or secretary is always "she."

- using the generic "he" or "man" to represent both men and women, as in "When a writer is truly innovative, what criteria can we use to measure his achievement?" or "Besides men who can organize well and think clearly, what other essentials are needed to build an industry?"

- reacting to comments or questions articulated in a "feminine style" as inherently of less value than those stated in a "masculine style." The assumption that a woman student who begins a comment hesitantly and "overly" politely (as in "I wonder if maybe..."), or who makes a statement with questioning intonation, does not have a good grasp of the subject or has little of importance to say, may lead a teacher to "tune out" or to interrupt

and rephrase. However, this style may reflect the way women have learned to talk in our culture, and may have little relation to validity of what is said.

Reading #4, from Hall, R. M., & Sandler, B. R. (1982).
The classroom climate: A chilly one for women? Project
on the Status and Education of Women, Association of
American Colleges, pp. 16-17.

Recommendations for Women Students

- Do an informal "tally" of patterns of interruption, successful introduction of topics, development of comments, etc. during a typical class session to see if they break down along sex lines.

- If you seem to be disproportionately interrupted in a given class, discuss your perception with other women students to see if their experience coincides with your own. If so, you may wish to get together and bring your concern to your teacher's attention.

- Give credit or "authorship" to comments made by women classmates ("as Mary said...") - especially if credit has not been properly given during the course of the discussion.

- Give your professors positive feedback for efforts to create an equitable learning climate. For example, if a professor makes it a point to use sex-balanced classroom examples and/or avoid the generic "he," show your attention and approval by making eye contact, nodding, etc. - or by telling the professor that you recognize and appreciate his or her efforts.

- Familiarize yourself with your institution's grievance procedure for sexual harassment. If it does not include a mechanism for airing concerns and providing feedback to faculty about overtly biased comments and sexist humor in the classroom, work to have it changed.

- Use your student evaluation form to comment - positively or negatively - on the climate of your classes.

- Where appropriate, discuss problems of classroom climate with the department chair or dean. Raising these issues as a group may be helpful.

- Encourage student publications such as the school newspaper to write about the subject of classroom climate.

- Hold meetings, workshops or hearings about classroom climate in order to bring about awareness of the subject.

- Encourage student organizations to press for inclusion of classroom climate issues in faculty development programs and in official statements relating to teaching standards.

- Recognize features of your own speaking and nonverbal style that may be counterproductive in a classroom setting. You may wish to ask classmates for their observations on your in-class style.

- If you feel you would benefit by modifying your own speaking style to enhance your effectiveness in the classroom, check with appropriate academic departments

(e.g., Speech/Communications) and the student services offices (e.g., Student Affairs) to see if your institution offers workshops to help women - and men - develop intellectual argumentation skills.

- Hold meetings or workshops on class participation anxiety. Invite experts in the field, faculty and/or alumnae who successfully overcame their own reticence about speaking in public and others to participate.

Appendix B

Reading #1 for group 1 from Doyle, J. A., & Paludi, M. A. (1991). Sex and gender: The human experience. Washington, D.C.: Wm. C. Brown Publishers, pp. 223-225, 229-231.

Verbal Outputs

Do women and men talk differently? To many people's way of thinking, the answer is yes (Leo, 1984). Many would argue that speech patterns as well as topics can be divided into feminine and masculine speech.

Those who study language patterns have noted that, in general, masculine speech seems direct and powerful while feminine speech appears indirect and powerless (Lakoff, 1973, 1975). Robin Lakoff noted that women's speech patterns contain significantly more tag questions, qualifiers, and longer request phrases, all of which convey a sense of powerlessness in their conversations with others. Various empirical studies have confirmed Lakoff's intuitive analysis of the differences between women's and men's speech patterns (Crosby et al., 1982; Kemper, 1984). Several studies have found that people who use "feminine speech patterns" are perceived as less competent and less convincing than those who don't use such speech patterns, regardless of whether the speaker is a woman or a man (Erickson et al., 1978; Newcombe &

Arnoff, 1979). Those speech patterns commonly associated with women are generally perceived by others to be the speech of a powerless and incompetent person; the purported male speech patterns more often convey a sense of power and competence.

In addition, the depiction of ethnic minority women and men speaking English is often racist. Children's books about Chicanos and Puerto Ricans often integrate poverty with a failure to speak English well (Moore, 1988). The use of language characterizations such as speech impediments, stilted English, and grunts suggest that ethnic minority individuals are less intelligent, less powerful, and less capable than white English-speaking characters.

Let's move on now from our discussion of perceived power and masculine and feminine speech and focus on some of the areas where we find evidence to suggest that some differences do, in fact, exist between the ways women and men talk. Yet before we begin, we should be mindful of a cautionary note with respect to the following discussion. "There has been a tendency in this field," writes Cheris Kramer, Barrie Thorne, and Nancy Henley (1978), "... to emphasize findings of difference between the sexes more than findings of no difference." These authors go on to say that:

Some researchers who initially hypothesized sex differences [sic] did not find them, but such research is less often reported and circulated than studies which point to differences, regarded as more "significant." Researchers may tend to presume and overreport differences rather than similarities between the sexes because our culture is infused with stereotypes which polarize females and males... What is notable is how few expected sex differences have been firmly substantiated by empirical studies of actual speech (640).

Before we accept too quickly those few verbal differences reported in the literature as universal findings, we would do well to remember that they may be the exception more than the rule. We should bear in mind also that even when women and men use identical words with the same pronunciation and converse with similar speech patterns, those listening may still perceive and evaluate what they hear in very different ways (Condry & Condry, 1976). Most people hold certain assumptions about what women and men do and what they should say. Again, as Cheris Kramer and her colleagues (1978) note, "Women's speech is conceptually and socially, if not in fact, separate from men's speech" (647).

Researchers (e.g., Berghout-Austin et al., 1987; Cook et al., 1985) found this gender difference in children preschool age through middle childhood. They have reported that like adults, male discourse patterns in childhood convey higher status than female patterns do. In addition, boys talk more and are more assertive

in their social interactions than are girls. Boys talk more in same-sex dyads while girls talk in both same- and opposite-sex groups. And, boys make significantly greater use of statements that express their personal desires and statements that assert leadership. While girls and boys advance in language development at generally the same rate, there are observable differences in speech style. As Berghout-Austin and her colleagues concluded: "...as children develop societally normative speech, they are developing discourse conventions that promote the unequal participation of boys and girls" (508).

Communication Strategies

If women have less power than men in most situations, we should not be surprised to find that women's speech patterns are often filled with words that weaken their messages. A person with power may speak directly, make commands, state a direct request, and avoid excessive words. In nearly every instance, this describes the verbal or communication strategies of men. Interviewer Phil Donahue once stated:

I've always felt a little anxious about the possibility of a program at night with a male audience. the problem as I perceive it - and this is a generalization - is that men tend to give you a speech, whereas women will ask a question and then listen for the answer and make another contribution to the dialogue. In countless situations I have a male in my audience stand up and say in effect, "I don't know what

you're arguing about; here's the answer to this thing." And then proceed to give a mini-speech (quoted in Steinem, 1986, 207).

Let's highlight four different communication strategies to see some common differences in how women and men speak and the effects these different strategies have on the perception of the speaker's power.

Tag questions

A tag question is partly a statement and partly a question. For example, suppose one of us were to say, "Geraldine Ferraro was a fine vice-presidential candidate, wasn't she?" Here we have a statement, "Geraldine Ferraro was a fine vice-presidential candidate," and a tag question, "wasn't she?" When someone tags a question onto a statement, we might infer that they are just being polite by asking for our opinion on the subject addressed in the statement. And many times, a tag question does just that: It shows a degree of politeness and consideration for another's idea on the subject of the initial statement. But on the other hand, the tag question at the end of a statement may make the statement seem weaker, less assertive, and less commanding. For example, if a friend of yours were to say, "I think arms control would be good for world peace, don't you?" Here you may think your friend is somewhat less sure of how to attain world peace because she or he appears to be

asking for your approval of their statement by asking "don't you?" If your friend believed strongly enough in her or his idea about world peace, she or he probably would not need to ask for your support or approval.

Thus in some situations, tag questions may be seen as showing that the people who use them are unsure or even afraid to assert their own opinions or to stand up for their own ideas in the face of possible rejection. One woman analyzed her own use of tag questions in the following way.

I often say to my boyfriend, "That's a pretty good album, isn't it?" I suppose I put it that way because I don't want to put my tastes on the line and commit myself like I would if I announced, "That's a good album." Then he could contradict me and say, "No, I don't think the arrangements are good." By tailing a question to my statement, I don't come on so strong and I'm putting part of the judgement on his shoulders. Since I don't stick my neck out, I don't lose much. In fact, if he violently dislikes the album I can always say, "Oh, I didn't think so anyway. That's why I asked" (quoted in Eakins & Eakins, 1978, 41).

Although there is very little empirical research on the use of tag questions in mixed-sex relationships, Robin Lakoff (1973) suggested that women are more likely to use them when discussing their personal feelings. For example, "I don't feel like going to the movies tonight, do you?" is the kind of tag question that Lakoff suggests is more common in women's speech than in men's. If Lakoff's hypothesis is correct, and there has

been some supportive research for it (Crosby et al., 1982), we may infer that women's greater tentativeness in strongly expressing her opinions or beliefs may be partially the result of the power difference between women and men.

Qualifiers

A qualifier is a word or words that blunt or soften a statement. Take, for example, the direct statement, "This psychology class is boring!" No question about it, the person who makes such a statement is putting forth his or her idea in no uncertain terms. But what of the statement, "Well, ah, I think this class is boring," or "I may be wrong but I think this class is boring." What we have in these last two statements are watered-down statements about the class. In the first we hear "Well, ah," and the statement about the psychology class. Using such qualifiers reveals tentativeness and uncertainty. Even more tentative is the second statement, which has a disclaimer preceding the statement: "I may be wrong about it but...." In general, the research findings on the use of qualifiers finds women slightly more likely to use them in their speech than men (Eakins & Eakins, 1978; Pearson, 1985).

Lengthening of requests

As we all know, you can make a request of someone

in several different ways. A drill instructor may simply say, "Attention!" Another person may say, "Will you please pay attention?" Which one of these two requests seems to be more direct, more forceful, and more in command? Of course, the one-word request, "Attention!" does the job in the most direct and powerful way. Adding more words - "will you please pay" - reduces the impact of the request. The research shows that women tend to use longer requests in their speech than men do (Eakins & Eakins, 1978).

Fillers

Fillers are those words or phrases like you know, ah, uhm, let me see, well, and oh. Again, little research has been done on fillers, but according to the research that is available, women are more apt to use fillers in their conversations than men are (Eakins & Eakins, 1978; Pearson, 1985). Women use fewer fillers in female-female conversations than in female-male conversations. This may suggest that women are more comfortable in conversing with other women than with men.

Reading #2, from Doyle, J. A., & Paludi, M. A. (1991).
Sex and gender: The human experience. Washington,
D.C.: Wm. C. Brown Publishers, pp. 231-236.

Nonverbal Communications

In some areas women and men differ in verbal patterns. It should not, therefore, come as a surprise to find that men and women also differ in some of their nonverbal communications as well. In this section, we will first look at the research evidence that women and men differ in the way in which and the frequency with which they express their emotions. We shall note also that women are generally better at expressing or sending nonverbal messages as well as receiving and decoding others' nonverbal messages. Then we will look at several specific areas of nonverbal patterns where women and men differ, namely eye contact, touch, and body posture. As we will see, the areas of nonverbal communication provide yet another fascinating study of how women and men differ with respect to communication styles.

Emotions and Gender

Most men can remember their boyhood days when one of the worst insults one could hurl at another little boy was to call him a "crybaby." Little boys aren't supposed to cry, aren't supposed to show fears, aren't supposed to act like "little girls," of course (Doyle,

1989). For most, the lessons of childhood seem to take root. In everyday life, one isn't shocked to see a woman cry when she feels pain, anger, or is upset. But what do we see when men are upset or in pain? Most men will not cry; that would be "feminine." Men are more apt to show anger rather than tears when they get upset (Pleck, 1976). Men who cry or show some sign of hurt and pain are apt to be branded as weak or effeminate. This is further illustration of the devaluation of what is considered feminine in this culture.

There is no concrete evidence that women and men experience different emotions, but there is considerable experiential evidence in all of our lives to suggest that women and men differ, more often than not, in how they express their emotions and what emotions they feel free enough to express in public (Blier & Blier-Wilson, 1989).

Senders and Receivers

Have you ever known a person who seemed to know what you were feeling even before you mentioned a word? A person who seemed to know your feelings and possibly make you a bit uncomfortable with such insight into your personal life? Chances are that person was a woman, and you may have said that she possessed something many people call "feminine intuition." There is growing

evidence that women are more adept in some aspects of nonverbal communications than men (Hall, 1978, 1979; Mayo & Henley, 1981). In fact, women seem more able to express their emotions or feelings nonverbally than men (Sabatelli et al., 1980, 1982). Encoding is the term used to refer to this ability. Also, there is evidence that women are more proficient at evaluating or judging others' nonverbal messages, or what is referred to as decoding (Buck, 1976).

But how can we explain women's purported better skills in such matters? As we noted in a previous chapter, the gender role stereotypes for women and men differ in several areas that are related to nonverbal skills. The masculine stereotype contains elements such as instrumentality and control; the feminine stereotype involves elements such as expressivity, supportiveness, and interpersonal sensitivity (Broverman et al., 1972; Spence & Helmreich, 1978). Because these gender-role related stereotypic differences have become part of our cultural norms, there is a strong possibility that parents and other significant socializing agents encourage girls and boys differentially with respect to these traits' expressions. For example, little girls may be reinforced to be more emotionally expressive than little boys are. In fact, there is some evidence showing that differential

parental treatment may affect a child's nonverbal ability (LaFrance & Carmen, 1980). Thus girls' and women's upbringing may influence them to develop a slightly better ability in certain nonverbal skills.

While there has been some consistency of findings, we should note that most researchers have focussed on white middle-class families (Reid & Paludi, in press). There is some evidence that parental responses may vary considerably based on both ethnicity and social class. For example, black preschool girls are typically expected by their parents to be more mature and responsible than are white girls. Little empirical data exists on gender role expectations for other ethnic groups. However, anecdotal information suggests that Asian American and Hispanic American parents expect their daughters to be even more submissive and dependent than white American parents.

The idea that early socialization of children plays a role in women's generally more skillful use and interpretation of nonverbal cues has received some empirical support. In a series of studies conducted by psychologist Miron Zuckerman and several colleagues (et al., 1981, 1982), women or men who score high on so-called feminine traits are better at sending nonverbal messages than men or women who score high on so-called

masculine traits. Specifically, these researchers found that femininity scores positively correlated with one's ability at sending both auditory and facial cues. We must keep in mind that these results did not find women *per se* better at sending nonverbal messages, but those who scored high in feminine traits (i.e., androgynous and feminine women and androgynous and feminine men). Men who are sensitive and emotionally expressive are just as good at sending nonverbal messages as sensitive and emotionally expressive women are. In yet another study, men who scored androgynous were found to be more expressive of their feelings than those men who scored very high only in masculine traits (Narus & Fischer, 1982). These studies indicate that women don't possess a sixth sense by virtue of their biological sex, but rather because of upbringing that encourages certain traits.

The evidence is fairly clear that women in general or women and men with feminine traits appear better at sending nonverbal messages, but the research is somewhat ambiguous about which sex has the edge in interpreting nonverbal messages (Schneider & Schneider-Duker, 1984).

Eye Contact

When two people look at each other, there can be several messages that can be inferred from such nonverbal behavior. If the "eyes are the mirror of the soul" as

one adage suggests, then we might expect that eye contact can be a very powerful nonverbal message. When researchers videotaped women and men in conversations and then timed the amount of eye contact between the participants, the results are fairly straightforward. Women generally show more social eye contact than men, meaning that in conversations between same-sex and opposite-sex pairs, women will look at the other more than men will (Aiello, 1972; Mehrabian, 1971). Eye contact may be linked to a person's expression of affection or just wanting to develop a relationship with another. According to the research, women tend to show greater eye contact and display longer gazes at others than men do (Russo, 1975). Wayne Podrouzek and David Furrow (1988) found these gender differences in children as young as two and four years of age!

And, Alethia Smith (1983) and Uwe Gielen (1979) observed race and sex interactions in eye contact: Black women look less often than do white women dyads; black women leaned synchronously more often than white female and black male dyads. In addition, white adults look at each other more frequently than blacks. Interracial female dyads and white male dyads reflect the highest degree of mutual trust and liking, while interracial male-female dyads express the least.

Another form of eye contact can imply aggression and is usually known as staring. Most women tend to look away when they notice they are the target of someone else's stare. The reason for such avoidance may be linked to the idea that staring is often interpreted as an aggressive or even sexual nonverbal message.

Touch

Touching another person has been thought to be one of the most powerful means of suggesting status or dominance in a dyad. For example, most people would find it acceptable for a manager to touch the shoulder of a subordinate, but for a subordinate to touch the shoulder of a manager is another situation altogether. Touching another is one way to express power or dominance over another (Henley, 1973, 1977). In general, men or those with more power and dominance in most situations are more apt to touch a woman and not vice versa.

Touching may be interpreted to mean power, but it also may have an affectional or sexual connotation to it (Pearson, 1985). Thus if a woman was to touch the arm or the shoulder of a man, it may be interpreted as being sexual. But women are supposed to know that when a male manager puts a hand on the shoulder of his female secretary, it is nothing more than a simple friendly gesture, or is it?

Although the research on touching is rather scanty, two studies stand out. In the first, both women and men librarians either touched or did not touch those to whom they gave a library card. Those people who were touched by the librarian had more positive opinions of the library and the librarian than those who were not touched during the transaction (Fisher et al., 1976). It seems that in a public situation, another's touch can be interpreted in a positive and friendly way. This would suggest that touching is a most important way of forming friendships and one that most people find desirable. In another study, this one conducted by Carie Forden (1981), students watched a videotape of a man and woman conversing. One group of students saw a woman touch a man on the shoulder; another group saw a man touch a woman on the shoulder. Forden found that when the students saw a woman touch a man she was thought quite dominant, and a man was touched was seen as passive. Forden concluded that touching does carry a dominance message and that touching seems more appropriate for men to do than for women.

Body Position and Posture

Researchers have begun to systematically catalog how body positions and posture (which are as revealing as verbal cues) convey different messages about relationships

(Goffman, 1979; Hall 1966; Pearson, 1985). Consequently, we are learning some rather interesting differences in the ways women and men position their bodies and what these positions mean in terms of a person's status and dominance. For example, men are more likely to occupy or control more personal space around their bodies than women occupy. From this specific nonverbal message, we can infer that men are more dominant and have a higher status than women. The rationale here is that the person who controls more physical space is more powerful, more dominant, and has a higher status than the person who controls less space.

With respect to body position, men tend to sit in a more relaxed way than women. In general, women tend to display a more restricted body posture than men, who seem to have a wider range of possible body positions. Traditionally, little girls are encouraged to sit in "ladylike" ways. Specifically, women are taught to sit with their legs close together or crossed at the ankles and their hands placed on their lap. Men, on the other hand, are more apt to sit with their legs crossed by putting the ankle of one leg over the knee of the other leg or sitting with the legs apart. The man's body posture usually appears more relaxed than the woman's. These generalized postures and their nearly universal

association with either men or women can be seen even when a drawing is "sexless," and even by young children.

For example, in the IT Scale for Children (Brown, 1956a, b; see chapter 4), the child-figure drawing, "IT," is typically seen as a boy, not as sexually neutral by children in kindergarten through grade 6 (Paludi, 1981; Sher & Lansky, 1968). The reasons for their decision concerns "IT's" short hair, wide stance, and hands on hips. Children believe "IT" would resemble a girl if there were eyelashes, longer hair, lipstick, and a dress!

Most of our information pertaining to body posture and gender differences is of the anecdotal type rather than from controlled studies. Many people have had, for instance, personal experiences in which they were reprimanded for standing or sitting in ways not deemed appropriate for their sex. Two such examples can serve to make this point:

When I was a kid I was sitting on the sofa reading and my legs were crossed, right knee draped over left. My father said, "You're sitting like a girl!" and demonstrated the right way: He placed his left ankle on his right knee so that his thighs were separated at the immodest masculine angle. For a couple years after that I thought men were supposed to cross legs left over right, while women crossed them right over left. Or was it the other way? I could never remember which. So rather than make a mistake and do it like a girl, I preferred not to cross my legs at all.

And another man recounted:

I was out by the mailboxes talking with my next-door neighbor, a football coach, whom I respected enormously. We were standing there talking. I had my hands on my hips. He said jokingly that I was standing a woman's way, with my thumbs forward. I was 27 years old and I had never really thought about the best way to stand with my arms akimbo. But now, whenever I find myself standing with thumbs forward I feel an effeminate flash, even when I'm alone, and I quickly turn my hands around the other way (both quotes taken from Wagenvoord & Bailey, 1978, 44).

Reading #3 from Belenky, M. F. (1986). Women's ways of knowing: The development of self, voice, and mind. New York: Basic Books, pp. 44-45, 100-103, 150.

Received Knowledge: Listening to the Voices of Others

While some of the women we interviewed most certainly saw authorities as the source of the "right answers" and "truth," they did not align themselves with authorities to the extent Perry described occurring among men. This world of "Authority-right-we" was quite alien to many women.

The women in our sample seemed to say "Authority-right-they." They were awed by but identified less with authorities than did Perry's men. This might be accounted for by the fact that the women were, on the whole, less privileged in terms of social class than were the men Perry studied. To test this notion we examined the interviews of the young, privileged women attending elite colleges who held the perspective of received knowledge. While these women also seemed to be awed by authorities, they appeared to identify more with outsiders than with the authorities, as did their less privileged peers.

That women identify less with authorities might be accounted for by the fact that the authorities they meet do not include women in their "we." The women we interviewed spoke, for instance, of science professors who communicated

their beliefs that women were incapable of making science. They spoke, all too often, of authorities who wielded their power to extract sexual favors. Women are much less likely than men to find authorities of either sex who are willing to act as sponsors and mentors for them (Hall and Sandler 1983; Speizer 1981). Even in the modern age in which these women are living, it is still relatively rare for them to find authorities of their own sex as models. Leadership in public life still rests predominantly on male shoulders. The schools that these women attended were very likely to have ignored the works and achievements of women in developing the curriculum. Their male classmates were more likely to have taken and held the floor for presenting their views and to have received a greater amount and more effusive public praise for their achievements than were the women (Hall and Sandler 1982; Richardson, Cook, and Macke 1981; Treichler and Kramarae 1983). Some of the colleges we studied had few or no women as senior administrators and few or no women as senior tenured faculty, and the female faculty members that were hired had to scramble for temporary annual appointments, year after year.

That women are less inclined to see themselves as separate from the "theys" than are men may also be accounted for by women's rootedness in a sense of connection

and men's emphasis on separation and autonomy - the major themes that theorists like Carol Gilligan (1982), Nancy Chodorow (1978), and Jean Baker Miller (1976) evoke to understand gender differences in human development. Men, valuing distance and autonomy, are more exclusionary. To them, "we" clearly means "not they." Women valuing connection and intimacy are much more likely to be inclusionary, finding "they" and "we" to be intertwined and interdependent.

One of the reasons that we call this position "received knowledge" is that these women focus on listening; Perry's dualistic men seem to lecture more than listen. Given the women's tendency toward conformist thinking and their subordinate status, it is not surprising that women cultivate their capacities for listening while encouraging men to speak.

Studies on gender differences in the use of language suggest that the world is commonly divided into two domains: speaking and listening. Studies repeatedly, but not always consistently, find that it is the men who do the talking and the women who do the listening (Argyle, Mansur, and Cook 1968; Aries 1976; Bernard 1972, 1981; Fishman 1983; Swacker 1976; Thorne and Henley 1975; West and Zimmerman 1983; Zimmerman and West 1975). These sex differences are large and persistent and have been noted

in private as well as public domains.

Procedural Knowledge: Separate and Connected Knowing

The procedures Patti and Naomi use for making meaning, although similar and equally reasonable, are not identical. Their stories illustrate the evolution of two distinctive forms of procedural knowledge. The theme of understanding is more prominent in Patti's story than in Naomi's, and the theme of knowledge is more prominent in Naomi's story than in Patti's, although both themes are present in both stories.

By understanding we mean something akin to the German word *kennen*, the French *connaitre*, the Spanish *conocer*, or the Greek *gnosis* (Lewis 1983), implying personal acquaintance with an object (usually but not always a person). Understanding involves intimacy and equality between self and object, while knowledge (*wissen*, *savoir*, *saber*) implies separation from the object and mastery over it. Understanding, in Patti's view and the view of other women at this position, entails acceptance. It precludes evaluation, because evaluation puts the object at a distance, places the self above it, and quantifies a response to the object that should remain qualitative. (Many women who hold this view at one point in their lives come to take a different view. We shall meet some of them in the next chapter.)

In Perry's (1970) account of intellectual development, the student discovers critical reasoning as "how They [the upper case "T" symbolizing authority - here, the professors] want us to think," how students must think in order to win the academic game. The student uses this new mode of thinking to construct arguments powerful enough to meet the standards of an impersonal authority. This is Naomi's story, and most of the women in this chapter tell a similar story. Viewed from a distance, at least, these women might almost be men.

Patti's story is different. Her new mode of thinking emerges not out of a need to conform to the demands of external authorities but out of a need to understand the opinions of other people, opinions that seemed at first obscure, alien, even threatening to her. We saw in chapter 4 how some of the subjectivist women were beginning to really listen in order to discover what other people were thinking. Patti goes further. In an attempt to achieve a kind of harmony with another person in spite of difference and distance, women like Patti try to enter the other person's frame to discover the premises for the other's point of view. The other may be a teacher but is more likely to be a peer and may be a long-dead poet. The focus is not on how They want you to think, as in Perry's account, but on how they (the

lower case "t" symbolizing more equal status) think; and the purpose is not justification but connection.

Naomi, like Perry's prototypical male undergraduate at this position, asks herself, "What standards are being used to evaluate my analysis of this poem? What techniques can I use to analyze it?" As with the small boys Piaget (1965) observed playing marbles on the sidewalks of Geneva fifty years ago, the orientation is toward impersonal rules. Borrowing a term from Gilligan (1982), we call this epistemological orientation *separate knowing*. Women at the same position who think more as Patti does ask instead, "What is this poet trying to say to me?" The orientation, as with the little girls Piaget observed playing hopscotch, is toward relationship. We call this epistemological orientation *connected knowing*.

Gilligan (1982) and her colleague Nona Lyons (1983) use the terms *separate* and *connected* to describe two different conceptions or experiences of the self, as essentially autonomous (separate from others) or as essentially in relationship (connected to others). The separate self experiences relationships in terms of "reciprocity," considering others as it wishes to be considered. The connected self experiences relationships as "response to others in their terms" (Lyons 1983, p. 134).

People who experience the self as predominantly

separate tend to espouse a morality based on impersonal procedures for establishing justice, while people who experience the self as predominantly connected tend to espouse a morality base on care (Lyons 1983). Similarly, we posit two contrasting epistemological orientations: a separate epistemology, based upon impersonal procedures for establishing truth, and a connected epistemology, in which truth emerges through care. As the philosopher Nel Noddings says, "In the intellectual domain, our caring represents a quest for understanding" (1984, p.169). Although our use of the terms *separate* and *connected* is similar enough to Gilligan's to warrant our adopting them, when we speak of *separate* and *connected* knowing we refer not to any sort of relationship between the self and another person but with relationships between knowers and the objects (or subjects) of knowing (which may or may not be persons).

The relationship between a person and an idea seems doomed to be one-sided, since an idea cannot reciprocate the care lavished upon it by a thinker. But, as Noddings says, "When we understand, we feel that this object-other has responded to us" (p.169). We hear it speak to us. The joy attendant upon intimacy with an idea is not so different from the joy we feel in close relationships with friends.

The voice of separate knowing is easy to hear. Developmentalists like Piaget, Kohlberg, and Perry have turned our ears to it, and it rang out loud and clear in our interviews, especially with women from highly selective, rigorous, and traditional colleges like the one from which Perry drew his sample. The voice of connected knowing was harder to hear, because our ears were not tuned to it and because we never before listened with such care to relatively unschooled women, like Patti, who speak it most eloquently. We heard the voice, once identified, as at least a minor theme and sometimes the major one in the lives of even the most gifted and privileged women we interviewed, especially at the less traditional colleges. Connected knowing is not confined to the poor, the uneducated, or the soft-headed.

Nor is it exclusively a female voice. We all encounter men, in person and in print, who speak in this voice. Separate and connected knowing are not gender-specific. The two modes may be gender-related: It is possible that more women than men tip toward connected knowing and more men than women toward separate knowing. Some people, certainly, would argue that this is so, but we know of no hard data (to use a favorite separate knowing term) bearing directly on the issue, and we offer none here because we interviewed no men.

The women we interviewed were not limited to a single voice. Most of them spoke sometimes in one voice, sometimes in the other. In the next chapter we will see how some women moved to integrate the two orientations into a single, more balanced voice. For the moment, however, the developmental moment recorded in this chapter, each of the women spoke in two distinct voices, and each tipped toward one orientation or the other.

Commitment and Action

Most constructivist women actively reflect on how their judgments, attitudes, and behavior coalesce into some internal experience of moral consistency. More than any other group, they are seriously preoccupied with the moral or spiritual dimension of their lives. Further, they strive to translate their moral commitments into action, both out of a conviction that "one must act" and out of a feeling of responsibility to the larger community in which they live.

The formation of commitments in women follows a different track than for men. In Perry's description of the evolution of commitments (1970), it is clear that the average Harvard student foresees a single clarifying and self-defining act before him. Usually that choice concerns a career. Less frequently do we find accounts of choices regarding moral values and relationships.

Similarly, George Vaillant, in his longitudinal Grant Study of the male adult life cycle, notes that for men in their twenties and thirties, idealism and intimacy take a backseat in the quest for career consolidation. About the average man he studied who was caught up in "making the grade" in a career, Vaillant says: "Having achieved intimacy with a few fellow humans, he then tries to run faster and in a slightly different direction from all his classmates" (1977, p.217).

Women also foresee that initial act of commitment. But as they go on to describe the context in which their decisions will occur, their descriptions ultimately emphasize the action less than the context. Constructivist women mitigate any single choice by considering the effects it will have on others. Further, all these women are careful to describe not only the commitment to career that they foresee but also the commitment to relationships. Whether they plan to work immediately after their education or delay work for home and a family, they assume they will live at least some part of their lives with another adult and usually as a parent as well. For these women, it is a life foreseen rather than a single commitment foreseen.

Also from Ackerman, P. L., Sternberg, R. J., & Glaser, R. (1989). Learning and individual differences:

Advances in theory and research. New York: W. H. Freeman and Company, pp. 79, 180-181.

We also found some sex differences in our research. For example, men are more likely than women to believe that professors value funny and entertaining papers, to downplay the seriousness of their actions when caught committing an academic dishonesty, and to worry less. Women are more likely than men to take comprehensive class notes, to believe that professors value papers that express special interest and enthusiasm for the material, to try to figure out what will make them happy, to think about what they are able to do best, to try to discover and understand their limitations, and to cultivate a sense of responsibility and commitment.

We also found sex differences in our result, differences that in many cases were stereotypical of sex-typed distinctions. Women seemed to be more inwardly turned and reflective than men and more concerned with pleasing others. It is possible, of course, that the differences between the sexes that were obtained are in some sense adaptive: what works for women may actually differ somewhat from what works for men.

Reading #4 from the American College Health Association, "Stress in College: Stretching the Rubber Band?" (1990).

Try some of the techniques below and check with your student or community health or counseling center to see what stress management workshops they offer. Since managing stress usually involves physical and mental processes, programs ranging from biofeedback to time management and from muscle relaxation to assertiveness training may be useful alone or together at different times. Individual counseling or psychotherapy also may be helpful.

Short-Term Ways to Handle Stress

1. Relax where you are - close your eyes and visualize yourself in a pleasant setting, perhaps standing on the beach watching a beautiful sunset or fishing in a mountain stream.
2. Take a break - get some exercise or fresh air, or go somewhere private and yell or cry.
3. Ask yourself whether it's worth being upset over the situation. You can choose to stay calm and ignore it. If the issue is important, confront it directly, talk it out with a sympathetic friend, or write it out in a letter that you don't send.
4. List all the things you think you need to do right away. Then prioritize the list and do only the top few.

The rest can be first priority tomorrow. See the box "Beating Procrastination" at the back of this brochure.

Long-Term Ways to Handle Stress

1. Seek your own stress level. Strive for excellence within your limits.
2. Choose your own goals - don't live out choices others have made for you.
3. Become part of a support system. Look out for yourself by letting friends help you when you are under too much stress and by helping when they are overloaded.
4. Think positive. Your mind sends signals to your body to prepare for danger whenever you think about possible negative outcomes, and you become tense regardless of whether the event happens.
5. Make decisions. You can learn to live with the consequences or change your mind. In general, any decision - even consciously deciding to do nothing - is better than none.
6. Keep your expectations realistic. Don't expect perfection from yourself or others. Expect some problems reaching your goals and realize that you can solve most of them with practice.
7. Accept what you cannot change. If a problem is beyond your control, you're better off accepting it for now than spinning your wheels.

8. Anticipate potentially stressful situations and prepare for them. Decide whether the situation is one you should deal with, postpone, or avoid. If you decide to deal with the situation, practice what you will say and do.
9. Live in the present. Learn from the past and move on.
10. Manage your time. Prioritizing and planning can keep the demands of college life from becoming overwhelming.
11. Take care of your health. Exercise regularly, eat a balanced diet, get enough sleep, and avoid alcohol and other mood-altering drugs.
12. Take time for yourself. Make yourself your priority. Find time to relax - even if only for a few minutes - every day.

Helping a Friend

You can help a friend who is feeling overloaded. You don't have to solve your friend's problems - often a sympathetic ear is all that is required.

If you notice that your friend has stress-related problems that are affecting your relationship, but he or she denies being stressed out, you may have to take the initiative. Keep in mind that many people believe they should be able to handle any stress in their lives. Don't accept repeated brush-offs - "it's just this paper," or "that boyfriend," or "this visit home."

Focus on how your friend's situation makes you feel and express your concern. Point out that stressful times are normal and manageable, and suggest campus or community programs or hotlines your friend might use.

Stress and Illness

Negative, excessive stress may be a key element in half of all illnesses, ranging from the common cold to heart disease. Studies suggest that your stress level affects your immune and nervous systems, heart function, metabolism, and hormone levels. As a result, researchers now believe that stress may affect your recovery from, as well as your susceptibility to, illness.

The Signs of Stress

The symptoms below may indicate increased stress as well as other problems. Have a medical checkup for any physical symptoms and try some stress reduction techniques to relax and regain perspective. If relaxation or returning to healthy habits is still difficult, you may want to investigate individual or group counseling through your student or community health or counseling center.

- Problems eating or sleeping
- Increased use of alcohol or other drugs
- Increased boredom and fatigue: a general sense of "the blahs"

- Problems making decisions: increased procrastination
- Becoming anxious and confused over unimportant events
- Inability to concentrate or pay attention
- Inability to get organized
- Weakness, dizziness, and shortness of breath: "anxiety attacks"
- Persistent hostile or angry feelings; increased frustration with minor annoyances
- Nightmares
- Overpowering urges to cry or run and hide
- Changes in your exercise habits
- Frequent headaches, backaches, muscle aches, or tightness in the stomach
- Frequent indigestion, diarrhea, or urination
- Frequent colds and infections
- Frequent accidents and minor injuries

Danger

You may be suffering serious stress overload, if:

- You feel a growing need for food, tobacco, alcohol, tranquilizers, sleeping pills, or other drugs.
- Your behavior (such as driving too fast, vandalizing school property, or practicing unsafe sex) puts you or others at risk.
- You are making plans to harm yourself.
- Friends keep telling you that you seem stressed out.

Speak with a counselor to find some less dangerous ways to unwind.

The Rubber Band

Stress is your physical, emotional, and mental response to change, regardless of whether the change is good or bad.

Without some stress, people wouldn't get a lot done. The extra burst of adrenaline that helps you finish your final paper, win at sports, or meet any other challenge is positive stress. Its a short-term physiological tensing and added mental alertness that subsides when the challenge has been met, enabling you to relax and carry on with normal activities.

If you can't return to a relaxed state, this stress becomes negative. The changes in your body - increased heart rate, higher blood pressure, and stomach and muscle tension - start to take their toll, often leading to mental and physical exhaustion and illness.

Using the analogy of the rubber band, positive stress is just the right amount of stress need to stretch the band and make it useful. Negative stress snaps the band.

Stretching the Band

You may be under more intense competition for grades or feel guilty about the amount of money spent on

your schooling. You may feel anxious about the time school takes away from your family or work, or worried about whether you will find a job in your field after you complete your education. Or perhaps you are in your first serious relationship or living on your own for the first time.

Any of these factors can stretch the rubber band, pushing you closer to the snapping point.

Taking Charge

In addition to creating potentially stressful situations, college gives you an opportunity to evaluate and change the ways you manage stress.

You've been coping with stress since you were a child, using skills you copied or learned from family and friends. You may be feeling that some of the techniques you may have learned - letting others make decisions for you, skipping school, or overeating - aren't as effective as you once thought they were. Or you may need to learn new techniques to manage new levels of stress.

Beating Procrastination

Here are some tips to help you cope with one of the most common college stressors - Procrastination. You can develop similar "hands on" plans to manage other stressors and help you stay in control.

1. Buy a calendar. Set up a daily or weekly schedule

for yourself, allowing time for class, study, leisure, exercise, and other activities that are important or fun for you. Allow about two hours of study time for every one hour of class. And remember, your schedule doesn't have to be perfect - you can change it as needed.

2. Keep a "to do" list. Prioritize your tasks and try to get the most important done on time. Fit the rest in as possible, making certain that you take some time to enjoy yourself.

3. Ask for help. Contact your student or community counseling center for support and additional help if you need it.

Appendix C

Questionnaire #1

Please complete this questionnaire as accurately as possible. Please base your responses upon any previous college experience that you have had.

1) You are currently a:

Freshman Sophomore Junior Senior

2) Have any of your professors ever made comments that put down women or women's intellectual ability?

Never Sometimes Frequently Always

3) Have any of your professors ever put down a particular female in your class?

Never Sometimes Frequently Always

4) Have any of your professors ever interrupted a discussion about academics with you in order to comment on your physical appearance?

Never Sometimes Frequently Always

5) Have any of your professors ever referred to the females in your class as girls, while referring to the males as men?

Never Sometimes Frequently Always

6) Have any of your professors ever told jokes that were derogatory to women?

Never Sometimes Frequently Always

7) Have any of your professors made eye contact with

you during class?

Never Sometimes Frequently Always

8) Have any of your professors ever stood in an area of the classroom where mostly women students were sitting?

Never Sometimes Frequently Always

9) Have you ever been excluded from, or has your participation ever been limited in any course related activities such as labs or field trips?

Never Sometimes Frequently Always

10) Have any of your professors ever given men and women the same amount of assistance in completing class assignments?

Never Sometimes Frequently Always

11) Have any of your professors ever behaved flirtatiously with you or tried to "come on" to you sexually?

Never Sometimes Frequently Always

12) In your opinion, have your professors called on women and men equally to contribute in class?

Never Sometimes Frequently Always

13) Have your professors called on all students in the same manner (i.e., using first names for everyone)?

Never Sometimes Frequently Always

14) In your classes, have both male and female students been given sufficient time to express themselves when contributing to class discussion?

Never Sometimes Frequently Always

15) Have any of your professors ever interrupted you?

Never Sometimes Frequently Always

16) Have any of your professors used "man" or masculine pronouns when referring to all human beings

Never Sometimes Frequently Always

17) Please show how you felt when any of these behaviors took place by marking the appropriate emotions. For any of those you have felt, write next to the emotion what kind of event triggered this.

Left out (ignored)

Relieved

Upset

Stupid

Pleased

Angry

Sad

Happy

I have doubts about myself

I don't feel anything

It doesn't bother me

I think it's funny

I feel like I don't belong in this class

I'm not smart enough to do well in this class

Singled Out

Embarrassed

Other

Comments:

Questionnaire #2

Please complete this questionnaire as accurately as possible. Please base your responses upon your observations in your classes today.

1) You are currently a:

Freshman Sophomore Junior Senior

2) Do your professors make comments that put down women or women's intellectual ability?

Never Sometimes Frequently Always

3) Do your professors put down particular females in your classes?

Never Sometimes Frequently Always

4) Do your professors interrupt discussion about academics with you in order to comment on your physical appearance?

Never Sometimes Frequently Always

5) Do your professors refer to the females in your class as girls, while referring to the males as men?

Never Sometimes Frequently Always

6) Do your professors tell jokes that are derogatory to women?

Never Sometimes Frequently Always

7) Do your professors make eye contact with you during class?

Never Sometimes Frequently Always

8) Do your professors stand in an area of the classroom

where mostly women students sit?

Never Sometimes Frequently Always

9) Are you excluded from, or is your participation limited in any course related activities such as labs or field trips?

Never Sometimes Frequently Always

10) Do your professors give men and women the same amount of assistance in completing class assignments?

Never Sometimes Frequently Always

11) Do your professors ever behave flirtatiously with you or try to "come on" to you sexually?

Never Sometimes Frequently Always

12) In your opinion, do your professors call on women and men equally to contribute in class?

Never Sometimes Frequently Always

13) Do your professors call on all students in the same manner (i.e., using first names for everyone)?

Never Sometimes Frequently Always

14) In your classes, are both men and women given sufficient time to express themselves when contributing to class discussion?

Never Sometimes Frequently Always

15) Do your professors ever interrupt you?

Never Sometimes Frequently Always

16) Do your professors use "man" or masculine pronouns

when referring to all human beings?

Never Sometimes Frequently Always

17) Please show how you feel when any of these behaviors take place by marking the appropriate emotions. For any of these that you feel, write next to the emotion what kind of events trigger this.

Left Out (ignored)

Relieved

Upset

Stupid

Pleased

Angry

Sad

Happy

I have doubts about myself

I don't feel anything

It doesn't bother me

I think it's funny

I feel like I don't belong in this class

I'm not smart enough to do well in this class

Singled Out

Embarrassed

Other

Comments:

Appendix D

Percentages of Subjects in the Control Group Who Felt Emotions

Questionnaire	1	2	3	4	5
Left out	13%	0%	8%	0%	0%
Relieved	15	8	0	0	0
Upset	23	17	8	0	0
Stupid	46	8	0	8	0
Pleased	30	0	0	8	20
Angry	30	0	0	8	0
Sad	15	8	0	0	0
Happy	23	8	0	0	0
I have doubts about myself	23	17	8	0	0
I don't feel anything	15	17	17	8	10
It doesn't bother me	23	17	8	17	20
I think it's funny	7	0	0	0	0
I don't belong in this class	15	0	8	0	10
I'm not smart enough to do well in class	15	0	8	0	0
Singled Out	15	0	0	8	0
Embarrassed	7	0	0	0	0

Percentages of Subjects in the Moderately Aware Group

Who Felt Emotions

Questionnaire	1	2	3	4	5
Left out	40%	20%	13%	14%	0%
Relieved	27	27	13	21	7
Upset	20	20	13	21	14
Stupid	47	20	13	7	0
Pleased	40	40	27	35	14
Angry	47	33	33	28	7
Sad	20	27	13	14	7
Happy	27	20	27	21	0
I have doubts about myself	33	13	7	7	0
I don't feel anything	27	33	33	35	28
It doesn't bother me	27	40	40	28	35
I think it's funny	13	7	7	7	0
I don't belong in this class	27	20	13	14	0
I'm not smart enough to do well in class	47	20	13	14	7
Singled out	33	27	27	28	14
Embarrassed	47	20	20	21	7

Percentages of Subjects in the Highly Aware Group Who
Felt Emotions

Questionnaire	1	2	3
Left out	27%	11%	0%
Relieved	0	0	0
Upset	45	11	0
Stupid	18	11	0
Pleased	45	44	0
Angry	73	33	0
Sad	0	0	0
Happy	27	22	12
I have doubts about myself	0	11	0
I don't feel anything	0	0	0
It doesn't bother me	18	11	0
I think it's funny	0	0	0
I don't belong in this class	0	22	0
I'm not smart enough to do well in class	18	22	0
Singled out	18	22	12
Embarrassed	18	33	0